

**REMARKS**

Claims 1 – 14 and new claims 15 – 21 are pending in this application. Claims 3 and 8 have been withdrawn. No new matter has been introduced.

**Rejection Under 35 USC § 102(b)**

Claims 1 – 2, 4 and 9 are rejected under 35 USC § 102(b) as being anticipated by Wagner et al., Plant Molecular Biology, Vol. 49, pp. 515-532 (July 2002) (hereinafter “Wagner”) for the reasons noted at pages 2 – 3 of the Office Action.

To expedite prosecution, Applicants have amended claims 1, 2, 4 and 9 so that language from the preamble is now moved into the body of these claims.

Applicants respectfully submit that the Wagner reference does not disclose the use of a nucleic acid having a nucleotide sequence of SEQ ID NO:1 (as recited in claim 1, parts (i) – (iv)) to provide activity for vacuolar compartmentalization of flavonoids in plant cells. *See* body of claim 1 as amended.

The use of the sequence of Wagner and Mauch of AF288189 in attachment #1 (recited at page 3, lines 3 – 4 of the Office Action) as evidence of the sequence identity of AF288189 to SEQ ID NO:1 is improper because (1) the Wagner and Mauch reference cited in attachment #1 is from an unpublished article which was submitted in Switzerland. Thus, under 35 USC §102(b), unless AF288189 was in public use or on sale in this country before March 11, 2003 (one year before Applicants’ U.S. filing date) such unpublished information cannot be used as prior art. In that regard, the gene sequence corresponding to AF288189 was not disclosed in Wagner. Furthermore, reliance on the unpublished Wagner and Mauch reference from Switzerland does not bring the actual sequence of AF288189 of 645 nucleotide base pairs into the disclosure of the Wagner reference cited.

Accordingly, without such information nor knowledge of the utility of the polynucleotide of SEQ ID NO:1, claims 1, 2, 4 and 9 are patentability distinguished over the Wagner reference. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 2, 4 and 9 under 35 USC § 102(b) over Wagner.

**Claim Rejection Under 35 USC §103**

Claims 1 – 2, 4 – 7, and 9 – 14 are rejected under 35 USC §103(a) as being unpatentable over Alfenito M. et al. (hereinafter “Alfenito”) in view of Wagner for the reasons noted at pages 3 – 5 of the Office Action.

To expedite prosecution, Applicants have amended claims 1, 2, 4 – 7 and 9 – 14 to now recite language from the preamble of the independent claims into the body of the independent claims. By doing so, by virtue of their dependency, the dependent claims encompass similar language in them as well.

With that in mind, Applicants respectfully submit that Alfenito does not disclose, teach, or suggest that the polynucleotide of sequence of SEQ ID NO:1 (as recited in parts (i) – (iv) of claim 1) nor its corresponding expressed protein of SEQ ID NO:2 (as recited in parts (a) – (c) of claim 2 and the claims depending therefrom) has any activity for transportation of flavonoids into vacuolar structures of plant cells.

Furthermore, Alfenito discloses that when the Type I glutathione S-transferase (GST) Arabidopsis GST EST H36860 was utilized, it “failed to confer pigment deposition” as noted at page 1137, col. 2 of Alfenito. (Emphasis added.) Accordingly, Alfenito teaches away from the use of Arabidopsis GST EST H36860 for vacuolar compartmentalization of flavonoids in plant cells as recited by the amended claims.

Furthermore, in view of that teaching away in Alfenito, one of ordinary skill in the art would not have been motivated to replace the Arabidopsis GST EST H36860 of Alfenito with that of ATGSTF11 or ATGSTF12 (AF288189) recited in Table 1 of Wagner (at page 518) because those sequences (ATGSTF11 and ATGSTF12) were unpublished as marked on the far right col. of the corresponding entry at Table 1 of Wagner.

Accordingly, in view of the teaching away of Alfenito that Arabidopsis GST EST H36860 “failed to confer pigment deposition”, one of ordinary skill in the art would not have been motivated to substitute ATGSTF11 or ATGSTF12 (also known as AF288189) for the H36860 sequence noted in Alfenito. Furthermore, even if one were to try to substitute the sequence of ATGSTF12 (corresponding to AF288189) for that of H36860, one of ordinary skill would not be able to so because one of ordinary skill in the art would not have been aware of the actual sequence of ATGSTF12 (AF288189) because such information was unpublished and never known or used in the United States before Applicants’ March 11, 2004 U.S. filing date.

For the foregoing reasons, Applicants respectfully submit that claims **1, 2, 4 – 7, and 9 – 14** are patentably distinguished and non-obvious over Alfenito in view of Wagner. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of these claims under 35 USC § 103(a) as being obvious over Alfenito in view of Wagner.

#### **New Claims**

New claims **15 – 21** reciting sequence identity of at least 80% with SEQ ID NO:1 or with SEQ ID NO:2, respectively, are also patentably distinguished and non-obvious over the references of record.

**Conclusion**

In accordance with the foregoing, it is respectfully submitted that the application is in condition for allowance and a written indication of the same is earnestly solicited.


If any issues remain to be resolved, the Examiner is respectfully requested to contact the undersigned attorney so that any remaining issues (if any) may be promptly resolved to secure allowance of the subject application.

No fees are believed to be due for the filing of this Amendment. However, if any fees are due or an overpayment of fees made, please debit or credit our Deposit Account No. 19-3935, as needed.

Respectfully submitted,

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